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09/430,644 10/29/99 HURST R SAR-13543

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EXAMINER

AN, S

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 03/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/430,644

Applicant(s)

Robert Norman Hurst

Examiner

Shawn An

Group Art Unit

2613



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-4, 6-12, 14-20, and 22-24 is/are rejected.

☒ Claim(s) 5, 13, and 21 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The disclosure is objected to because of the following informalities:

On page 29, line 25, "out-point" should be changed to "in-point".

Appropriate correction is required.

Drawings

3. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

4. The drawings are objected to because on Fig. 12, element 1212, "SMPTE 312u" should be changed to "SMPTE 312M", and element 1215, "ENTRY" should be changed to "EXIT".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

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6. Claims 1-2, 6, 9-10, 14, 17-18, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Wee et al (6,104,441).

Wee et al disclose a system for processing transport streams, comprising: a controller (Fig. 4) for identifying at least one (out/in)-frame within a transport stream (203; Col. 9, lines 56-67); a decoder (Fig. 9, element 348) for decoding each identified (out/in)-frame, a respective portion of the transport stream including the (out/in) frame; and an encoder (353) for re-encoding each decode portion of the transport stream to produce a respective (out/in)-point adapter (Col. 13, lines 21-61; Col. 16, lines 8-36) as specified in claims 1-2, 9-10, and 17-18.

Regarding claims 6, 14, and 22, Wee et al disclose decoding the in-frame and all non-I-frames following the in-frame up to next I-frame (Col. 11, lines 9-32) as specified.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-4, 7-8, 11-12, 15-16, 19-20, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee et al (6,104,441) in view of Chen et al (5,917,830).

Wee et al do not explicitly disclose particular (out/in)-point of the transport stream being replaced by the (out/in)-point adapter associated with the particular (out/in)-point as recited in claims 3-4, 11-12, and 19-20. However, Chen et al teach PSI/PID replacer (Fig. 4, element 435) for retrieving the relevant information from the main stream ...(Col. 6, lines 40-42). Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a system for processing transport streams as taught by Wee et al to incorporate a concept of Chen et al's

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replacer such that Wee et al's (out/in)-point could very well be replaced to a (out/in)-point adapter in order to provide a seamless, frame accurate splicing.

Wee et al do not particularly disclose well known parsing of a transport layer and determining for each frame in a conventional transport stream, a picture coding type, a start/end of frame transport packet number, PTS, and DTS. However, Chen et al disclose a conventional parsing of a transport layer (Fig. 4, element 415) to identify packets associated with at least one of sequence headers (Col. 7, lines 44-45) and picture headers (Col. 7, line 49) and determining for each frame in a conventional transport stream, at least one of a picture coding type (Fig. 7a, element 706), a presentation time stamp (PTS)(Col. 15, lines 18-23), and a decode time stamp (DTS)(Col. 15, lines 23-27) as specified in claims 7, 15, and 23. Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a system for processing transport streams as taught by Wee et al to incorporate Chen et al's parser for parsing of a transport layer to identify packets associated with at least one of sequence headers and picture headers, and determining for each frame in a conventional transport stream, at least one of a picture coding type, a presentation time stamp, and a decode time stamp as specified.

Regarding claims 8, 16, and 24, Chen et al disclose a meta file (425) for subsequent use in generating a transition stream as specified.

Allowable Subject Matter

9. Claims 5, 13, and 21 are objected to as being dependent upon a rejected base claims 1, 9, and 17, but would be allowable: if claim 5 is rewritten in independent form including all of the limitations of the base claim 1; and if claim 13 is rewritten in independent form including all of the limitations of the base claim 9 and any intervening claims; and if claim 21 is rewritten in independent form including all of the limitations of the base claim 17. Dependent claims 5, 13, and 21 recite the novel feature, wherein in the case of the out-frame comprising a B-frame, define the frame immediately preceding the prior I-frame in transmission order as a final transport stream

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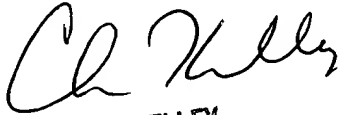
frame, and in the case of the out-frame not comprising a B-frame, define the out-frame as the final first transport stream frame in the transition stream. Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- A) Porter et al (5,864,682), Apparatus for frame accurate access of digital audio-visual information.
- B) Balakrishnan et al (5,982,436), Method for seamless splicing in a video encoder.
- C) Hurst, Jr. (6,038,000), Information stream syntax for indicating the presence of a splice point.
- D) Wine et al (6,137,834), Apparatus for splicing compressed information streams.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number is (703) 305-0099.


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600


ssa

February 14, 2001